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MILITARY REQUIREMENTS FOR MAN-IN-SPACE

The Department of Defense has the immediate requirement to undertake research and development leading to the capability of placing man in a maneuverable capacity in outer space.

Such a program will lead to a significantly improved capability to accomplish existing military missions, [redacted] navigation and communications. In addition, the development of such a capability is inherently a component of necessary military programs of a future, entirely predictable character. The Soviet Union is obviously committed to an extensive space conquest program of which the launching of their Sputniks is merely a public expression. It seems quite clear that these Soviet developments will inevitably lead to the production of still more sophisticated vehicles and that a capability for the utilization of orbital vehicles for offensive purposes will be exercised. Existing programs for attack warning, counteroffensive bombardment of both strategic and tactical targets, require that the United States develop a similar potential. No system now under contemplation or foreseen offers a potential as effective or economical as one employing manned vehicles.

It is an inescapable fact that a human being is, and will, for a long time, remain a superior mechanism as compared to a machine in detecting, observing, and analyzing enemy equipments, installations, deployments, and war resources in a timely fashion.

[redacted] Were such a capability in existence today, it would be of distinct value in contributing to definitive information and action relating to developments in the Middle East as well as in the Soviet Union.

National intelligence estimates now under development conclude that mechanical orbital flight [redacted] may be politically [redacted] infeasible. A manned capability, on the other hand, which would permit carefully controlled maneuvers far out in space and removed from enemy "air space" is a logical and feasible substitute.

[redacted] Manned space operations offer promise of providing for the

first time a truly effective and economical long-term attack warning and/or treaty inspection system. Manned space vehicles offer a logical extension of our deterrent capability. Such a system holds promise of providing for the first time a carrier vehicle equivalent in sophistication to atomic weapons.

It can not fairly be argued that these necessary military missions can, in the long term, be accomplished on an unmanned basis. Even in the short term, both prudence and economy dictate that the Department of Defense develop the capability to install, maintain, and repair mechanical equipment in space vehicles. Any unmanned equipment, be it designed for weather, communications, navigation, [redacted] or military operations, will have limited life and still more limited utility if mechanical vehicles can not be repaired. As a result of such failures, duplicate facilities must be placed in orbit. It is unlikely that it will be economically feasible to return such vehicles to earth for repairs. It is quite likely that a single high sophistication and manned and recoverable vehicle system will be both more efficient and more economical. It is also likely that the development of a manned space platform system will permit significant economies as regards propulsion; the introduction of unmanned vehicles into orbit at extremely high altitudes would obviate the need for atmospheric thrust. A manned system of this nature could very easily supplant the extraordinarily expensive and uneconomical consumption of initial boosters. It could also obviate the need for elaborate ground environment systems.

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Demonstrated Soviet progress in ballistic missile and space technology and ample evidence of Soviet capability to "leapfrog" the present state of the art in military applications argues conclusively against delay in the U. S. military research and development program leading to manned operations in outer space.

It is considered that this program must have its primary focus within the Department of Defense for compelling reasons in addition to those of a strategic nature. The Department of Defense has accumulated large installations and a broad production base for the development, production, testing and operation of rocket components. Large ballistic missile boosters are the essential elements required to achieve space vehicle launching capabilities. Coupled with this existing plant for the duplication of which

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many billions of dollars would be required is the extensive ground environment--launching facilities, ranges, tracking and telemetry facilities, and world-wide communications systems--which are essential to an effective research program and justifiable as well in terms of a necessary military defense capability. The duplication of such facilities is unacceptable. Dual utilization is undesirable and substantially impractical when programs having the ultimate magnitude of a man-in-space effort are considered. In terms of personnel alone the single effective resource for a world-wide ground environment is obtainable from the military departments.

This program is one of urgency. The background of experience, trained personnel, existing organization and management capability of the military departments can be applied to the problem immediately. No other organization with similar capabilities exists nor can it be developed in a short period of time.

In summary, there is a military necessity for the acquisition of a maneuverable man-in-space capability which offers potential for substantial military economies as well as necessary advance in military technology. The development of this capability can readily include desirable scientific endeavors of a similar nature, the physical plant and production base cannot economically be duplicated, and the space technology is concentrated in the Department of Defense.